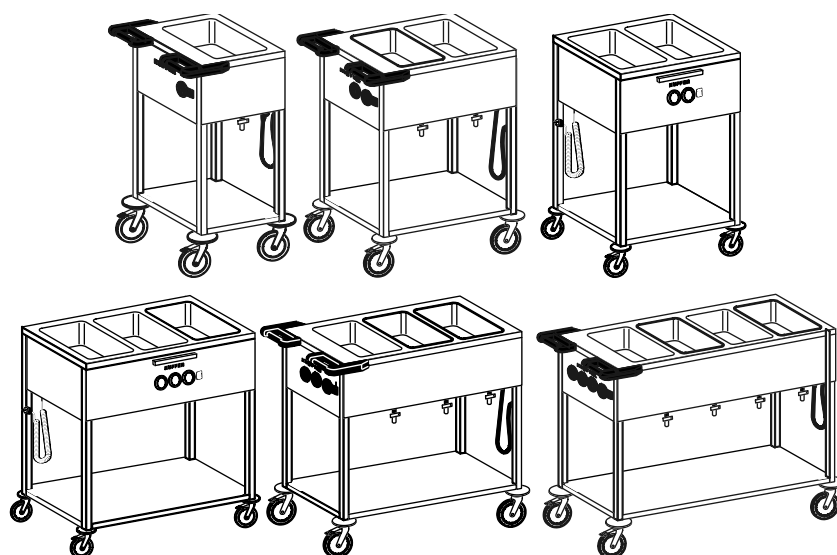


## Operating Instructions



### Mobile Bain Maries

SPA/EB-1 | SPA/EB-2 | SPA/EB-2F | SPA/EB-2LS | SPA/EB-3 |  
SPA/EB-3F | SPA/EB-3LS | SPA/EB-4

# 1 Introduction

---

## 1.1 Appliance Information

---

Appliance designation	Mobile Bain Maries
Appliance type/s	SPA/EB-1   SPA/EB-2   SPA/EB-2F   SPA/EB-2LS   SPA/EB-3   SPA/EB-3F   SPA/EB-3LS   SPA/EB-4
Manufacturer	HUPFER® Metallwerke GmbH & Co. KG Dieselstraße 20 48653 Coesfeld Germany  Postfach 1463 48634 Coesfeld Germany   +49 2541 805-0  +49 2541 805-111  <a href="http://www.hupfer.de">www.hupfer.de</a> <a href="mailto:info@hupfer.de">info@hupfer.de</a>

Read these operating instructions thoroughly and attentively to ensure safe operation and avoid any damage!

Ensure that operating staff have been briefed regarding sources of danger and possible incorrect handling.

### Subject to modifications

The products covered by these operating instructions have been developed while taking into account market requirements and the latest technology. **HUPFER®** reserves the right to modify the products and related technical documentation in the interests of technical progress. The data and weights as well as the description of capacity and functions assured in the order acknowledgement as binding are always decisive.

**Manual edition**  
4330002\_A2

## 1.2 Table of Contents

---

<b>1</b>	<b>Introduction</b>	<b>2</b>
1.1	Appliance Information	2
1.2	Table of Contents	3
1.3	Table of Abbreviations	5
1.4	Definitions of Terms	6
1.5	Orientation of the Appliance	7
1.6	Notes on Using the Manual	8
1.6.1	Notes on the Manual Structure	8
1.6.2	Notes and their Representation used in all Sections	8
<b>2</b>	<b>Safety Instructions</b>	<b>9</b>
2.1	Introduction	9
2.2	Warning Symbols Used	9
2.3	Safety Instructions for Appliance Safety	10
2.4	Safety Instructions for Transport	11
2.5	Safety Instructions for Cleaning and Care	11
2.6	Safety Instructions Regarding Troubleshooting	11
2.7	Notes on Specific Dangers	11
<b>3</b>	<b>Description and Technical Data</b>	<b>12</b>
3.1	Capacity description	12
3.2	Proper Use	12
3.3	Improper Use	12
3.4	Appliance Description	13
3.4.1	View of the mobile bain marie (operation on the front side)	13
3.4.2	View of the mobile bain marie (front mounted controls)	13
3.4.3	Appliance Description	14
3.4.4	Optional accessories	14
3.5	Technical data	15
3.6	Rating Plate	17
<b>4</b>	<b>Transport, Commissioning and Decommissioning</b>	<b>18</b>
4.1	Transport	18
4.2	Commissioning	18
4.3	Storage and Recycling	19
<b>5</b>	<b>Operation</b>	<b>20</b>
5.1	Arrangement and Function of the Controls	20
5.2	Operation	21
5.3	Measures at the End of Use	23
<b>6</b>	<b>Troubleshooting and Repair</b>	<b>25</b>
6.1	Safety Measures	25
6.2	Notes regarding Troubleshooting	25
6.3	Fault and Action Table	25




<b>7</b>	<b>Cleaning and Care</b>	<b>27</b>
7.1	Safety Measures	27
7.2	Hygiene measures	27
7.3	Cleaning and Care	27
7.4	Special Care Instructions	28
<b>8</b>	<b>Spare Parts and Accessories</b>	<b>30</b>

## Table of Abbreviations

Abbreviation	Definition	
CE	Communauté Européene European Community	
DGUV	German Statutory Accident Insurance ( <i>Deutsche Gesetzliche Unfallversicherung e.V.</i> )	
DIN	German Institute for Standardisation, technical regulations and technical specifications	
E/V	Spare or wearing part ( <i>Ersatz- bzw. Verschleißteil</i> )	
EC	European Community European Community	
EN	European Standard ( <i>Europäische Norm</i> ) Harmonised standard for the EU market	
HACCP	Hazard Analysis and Critical Control Points Danger analysis of critical control points	
IP	International Protection. The abbreviation IP and a further two-digit index specify the protection class of a housing. The first digit: Protection against ingress of solid foreign objects    The second digit: Protection against ingress of water	
	0    No protection against contact, no protection against ingress of solid foreign bodies	0    No protection against water
	1    Protection against contact with any large surface of the body such as the hand, protection against ingress of foreign objects $\varnothing > 1.97''$ (50 mm)	1    Protection against dripping water (vertically falling drops)
	2    Protection against contact with the fingers, protection against ingress of foreign objects $\varnothing > 0.5''$ (12 mm)	2    Protection against dripping water (at any angle up to 15° from the vertical)
	3    Protection against contact with tools, wires or similar objects of $\varnothing > 0.1''$ (2.5 mm), protection against foreign objects $\varnothing > 0.1''$ (2.5 mm)	3    Protection against water drips at any angle up to 60° from the vertical
	4    Protection against contact with tools, wires or similar objects of $\varnothing > 0.1''$ (1 mm), protection against foreign objects $\varnothing > 0.1''$ (1 mm)	4    Protection against water splashing from any direction
	5    Protection against contact, protection against dust deposits inside	5    Protection against water jets (projected by a nozzle) at any angle
	6    Complete protection against contact, protection against ingress of dust	6    Protection against rough sea or strong water jets (flood protection)
		7    Protection against ingress of water during temporary immersion
	8    Protection against pressurised water during continuous immersion	
LED	Light Emitting Diode Light diode	
LMHV	Regulation on the hygiene of foodstuffs	
RCD	Residual Current Device Residual current device (RCD)	
STB	Safety temperature limiter	
VDE	Association of Electrical Engineering, Electronics and Information Technology ( <i>Verband der Elektrotechnik, Elektronik und Informationstechnik e.V.</i> )	

## 1.3 Definitions of Terms

Term	Definition
Authorised specialist	An authorised specialist is a specialist that has been trained by the manufacturer, an authorised service dealer or a company assigned by the manufacturer.
Check, inspect	Compare with certain conditions and/or characteristics such as damage, leaks, filling levels and heat.
cleaning system-resistant	<p>The suitability of the appliance for cleaning in an automated washing device is limited. It is possible to achieve a flawless, reproducible cleaning and drying result, but it cannot be guaranteed.</p> <p>The exterior and interior housing are produced to standard versions. Water ingressing hollow spaces resulting from the design of the appliance can run off without hindrance. Water collection in hollow spaces is avoided. Installed electrical components and electrical wiring are protected by appropriate sealing (for example, labyrinth edges, sealing profiles, cable channels) against any form of penetration by water. Protection class IPX6 (powerful pressurised water) to DIN EN 60529 (VDE 0470) is guaranteed. It is possible that water remains and is carried over following the drying process.</p>
Convection	Physical properties or mass transfer (e.g. heat or cold) through currents in gases and liquids.
Cook&Chill Kitchens	"Cook and Chill": Kitchens where warm food is cooled as quickly as possible after being cooked.
Cook&Serve Kitchens	"Cook and Serve": Kitchens where warm food is served immediately after being cooked or kept warm until it is consumed.
Corrosion	The chemical reaction of a metallic material with its surroundings, e.g. rust.
Cover	A bell-shaped cover for keeping food warm on plates and dishes.
Element formation	Also: contact corrosion. Occurs when different noble metals are in close contact with each other. This happens when a corrosive medium is between both metals, such as water or even normal air moisture.
EM field	Electrical, magnetic or electromagnetic field that is defined by its field intensity and phase formation.
EN tray	A European standard tray is a tray in a standard size. EN 1/1 corresponds to 20.9x14.6" (530x370 mm), EN 1/2 corresponds to 14.6x10.4" (370x265 mm).
Gastronorm	Gastronorm is a measurement system used worldwide in places such as food processing plants or commercial kitchens. The use of standardised sizes makes it possible to exchange food pans. The basic size of the Gastronorm (GN) 1/1 is 20.9 x 12.8" (530 x 325 mm). Items are available in different depths.
GN tray	A Gastronorm standard tray is a standard-size tray. GN 1/1 corresponds to 20.9x12.8" (530x325 mm), GN 1/2 corresponds to 12.8x10.4" (325x265 mm).
H1	Hygienic standard (NSF/USDA) for lubricants that are suitable for incidental and technically unavoidable contact with foodstuffs.
HACCP	HACCP is a preventive system that is designed to ensure the safety of foods and consumers.
Instructed person	An instructed person is a person who has been instructed on the possible risks resulting from improper behaviour when carrying out an assigned task and regarding the necessary protective equipment and protective measures, and who has been trained for this task, if necessary.
Lift	A movement, for example a vertical movement of the guide basket from bottom to top.
LMHV	German Regulations on the Hygiene of Foodstuffs Regulations regarding hygiene requirements for producing, handling and placing food on the market
Machine safety	The term machine safety refers to all the measures used to avert injury to persons. The basis for machine safety is directives and laws for protecting users of technical devices and systems valid nationally and across the EC.
Passive layer	A non-metallic protective layer on a metallic material that prevents or slows down material corrosion.

Term	Definition
Porcelain Standard	Porcelain Standard is a measurement system for porcelain plates devised by HUPFER®. The basic size of Porcelain Standard (PN) 1/1 is 8.7 x 6.3" (220x160 mm) (1/2 PN conforms to 4.3x6.3" (110x160 mm), 1/4 PN conforms to 6.3x3.1" (160x80 mm)). The fitting lids have the following dimensions: 1/1 PN 9x6.6" (228x168mm), 1/2 PN 4.4x6.3" (111x161mm), 1/4 PN 4.4x3.2" (111x81mm).
Protection class	<p>0 -</p> <p>I  Protective measure with protective earth conductor</p> <p>II  Protective measure with protective insulation</p> <p>III  Protective measure with protective low voltage</p>
Qualified person, qualified staff	Qualified staff are persons who due to their professional training, experience, instruction and their knowledge of relevant standards, guidelines, accident prevention regulations and operating conditions have been authorised by a person responsible for system safety to carry out required activities and can recognise and prevent any potential dangers (definition of specialists according to IEC 364).
Schuko®	The abbreviation of the German term "Protective contact" indicates a system of domestic plugs and sockets equipped with protective earthed contacts used in most of Europe.
Specialist	A specialist is a person who can evaluate work assigned and can individually recognise any possible dangers due to professional training, specialist knowledge and experience as well as knowledge of the respective guidelines.
suitable for washing devices	<p>The appliance is suitable for cleaning in an automated washing device without restrictions. Following agreement with the manufacturer the washing device must achieve a hygienic, constant cleaning and drying result, which is to be approved by a third party (client).</p> <p>The exterior and interior housing are manufactured to a standard guaranteeing hermetic sealing. It is not possible for pressurised water to ingress into hollow spaces in the appliance. Installed electrical components and electrical wiring are protected by appropriate sealing against any form of penetration by water. Protection class IPX6 (powerful pressurised water) to DIN EN 60529 (VDE 0470) is guaranteed. No water remains or is carried over following the drying process.</p>
Verify, test	Compare with certain values such as weight, torque, content or temperature.
VESKA standard	Trays as per the VESKA standard are items used for distributing food in hospitals, principally in Switzerland; they measure 20.9x14.8" (530x375 mm)

## 1.4 Orientation of the Appliance

### Front

The "front" refers to the side where the controls are arranged. The operating staff stays on this side to move the mobile bain marie.

### Rear

The "rear" refers to the opposite side to the front.

### Right-side

The "right" refers to the right hand side when viewed from the front side (front).

### Left-side

The "left" refers to the left hand side when viewed from the front side (front).




## 1.5 Notes on Using the Manual

### 1.5.1 Notes on the Manual Structure

This manual is divided into function- and task-focused sections.

### 1.5.2 Notes and their Representation used in all Sections

The warnings and notes are separated from the other text and particularly marked by corresponding icons. The icon cannot, however, replace the text of the safety instructions. Therefore, always read thoroughly the full text of the safety instructions. The warnings and notes are separated in these operating instructions as follows and categorised by the following danger levels by means of various symbols.

DANGER	Brief description of danger
	<p>There is an imminent threat to life and physical well-being for the user and / or third parties if instructions are not followed precisely or the circumstances described are not taken into account.</p> <p>The type of danger is indicated by a symbol and explained in the accompanying text in more detail. The general hazard symbol is used in this example.</p>
WARNING	Brief description of danger
	<p>There is an indirect threat to life and physical well-being for the user and / or third parties if the instructions are not followed precisely or the circumstances described are not taken into account.</p> <p>The type of danger is indicated by a symbol and explained in the accompanying text in more detail. The general hazard symbol is used in this example.</p>
CAUTION	Brief description of danger
	<p>There is a potential risk of injury or damage to property if the instructions are not followed precisely or the circumstances described are not taken into account.</p> <p>The type of danger is indicated by a general symbol and explained in the accompanying text in more detail. The general hazard symbol is used in this example.</p>
Information	Brief description of additional information
	<p>Attention is pointed to special conditions or additional important information on the topic concerned.</p>
INFO	Short title
	<p>It contains additional information on work ease or recommendations on the topic concerned.</p>



## 2 Safety Instructions

---

### 2.1 Introduction

---

The section on safety instructions describes the risks associated with the appliance in terms of product liability (according to the EU Directives).

The safety instructions should warn of dangers and help to avoid damage to persons, the environment and property. Please make sure that you have read and understood all the safety instructions given in this section.

The valid national and international Safety at Work Regulations must be complied with. The manufacturer is responsible for the valid regulations he/she has to procure. He/she must acquaint himself/herself and the operator with the new regulations.




In addition to these operating instructions, you must comply with the Employers' Liability Insurance Association's Health and Safety rules, especially those concerning the handling of hot items and the risks that this entails.

### 2.2 Warning Symbols Used

---

Symbols are used in these operating instructions to indicate the dangers that may occur while operating or cleaning the appliance. In both cases, the symbol provides information on the type and circumstances of hazards.

The following symbols may be used:

	General danger area
	Hazardous electrical voltage
	Risk of hand injuries
	Contusion hazard
	Danger caused by hot surfaces
	Wear hand protection

## 2.3 Safety Instructions for Appliance Safety

---

The appliance is operated safely if it is used correctly and carefully. Negligent handling of the appliance can lead to a threat to life and physical well-being for the user and / or third parties as well as hazards for the appliance itself and the operator's other property.

The following points are to be observed to ensure the appliance safety:

- The appliance may only be operated as intended, when it is in perfect condition with regards to technical standards, with awareness of safety and hazards and in accordance with the operating instructions.
- All operating and actuating elements must be in a perfect and fail-safe condition with regards to technical standards.
- Before putting the appliance into operation, the appliance must be checked for external visible damage and defects. In case of damage, inform the person or persons responsible immediately and switch off the mobile bain marie.
- Modifications or retrofits to the equipment are only permitted after consultation with the manufacturer and upon receipt of their consent in writing.
- The appliance is designed for manual transport only. It is not permitted to use a machine of any type to move the appliance. Risk of injury and damage.
- Release both total brakes before moving the appliance. Moving the appliance when the total brakes are engaged can damage the chassis.
- The appliance may only be transported over level floors. Moving the appliance over very uneven floors and stair steps can damage the chassis.
- Do not stop the mobile bain marie by applying the total brakes. The total brakes are designed to prevent the appliance from moving of its own accord. Do not park the appliance on sloping floors. Secure the appliance against rolling away by applying both total brakes after parking.
- When approaching walls and moving round obstacles, always be aware for persons in your path. Risk of injury.
- When transporting the appliance, always hold both push handles with your hands. Never let go of the appliance while moving it.
- Move no faster than at walking pace when transporting the appliance. Heavily laden appliances are difficult to brake and steer. If necessary, ask for assistance when transporting the appliance.
- Never try to catch the mobile bain marie with your hands if it tips over due to carelessness or external circumstances. Risk of injury.
- The appliances have to be safely secured when transported off site inside a vehicle such as a truck. The total brakes are not suitable for securing the appliances when they are transported in a vehicle.
- Before transporting, switch off the appliance, pull out the mains plug and place it into the holder provided.
- Never use the connecting lead to pull the mains plug out of the socket.
- Never move the appliance by pulling on the connecting lead.
- If the mains plug has come into contact with water, it must be dried before it is inserted into the socket. **Danger to life.**
- Damaged mains plugs or connecting leads are to be replaced by authorised staff before the appliance is used again.
- Do not use extension leads in wet and damp areas.

## 2.4 Safety Instructions for Transport

---

The following aspects are to be taken into account when transporting the mobile bain marie:

- When loading, only use hoists and load lifting devices approved for the weight of the appliance to be lifted.
- Use transport vehicles that are approved for the weight of the mobile bain marie.
- Do not put a defective appliance into operation under any circumstances and inform the supplier immediately in such a case.

## 2.5 Safety Instructions for Cleaning and Care

---

The following aspects must be taken into account when performing any cleaning and care tasks:

- Take the mobile bain marie out of operation, switch it off, pull out the mains plug and secure it against unauthorised reactivation before performing cleaning and care measures.
- Cleaning instructions must be strictly observed for reasons of hygiene.
- Heated appliances must be out of operation and sufficiently cooled down before cleaning.
- Do not clean the appliance with steam-jet or high-pressure cleaners. The appliance must be taken out of operation and switched off at the mains beforehand in any area where steam-jet or high-pressure cleaners are to be used

## 2.6 Safety Instructions Regarding Troubleshooting

---

The following aspects must be taken into account when carrying out any troubleshooting work:

- The local Accident Prevention Regulations in force must be observed.
- Take the mobile bain marie out of operation, switch it off, pull out the mains plug and secure it against unauthorised reactivation before performing maintenance or troubleshooting operations. The appliance must be switched off at the mains and secured against reactivation when working on the electrical system. This work must only be carried out by a qualified electrician.
- Observe the valid product safety regulations for the product when handling oils, greases and other chemical substances.
- Carry out all the checks and inspections of the appliance on a regular basis. Remove immediately deficiencies, such as loose screw connections, melted or damaged leads.
- Only authorised specialists may repair any faults or malfunctions.
- Defective components may be replaced with original parts only.

## 2.7 Notes on Specific Dangers

---

### Electric power

- All work on the electrical installations may only be carried out by a qualified electrician or by authorised specialists under the supervision and monitoring of a qualified electrician according to the applicable electro-technical regulations.
- The appliances on which inspection, maintenance and troubleshooting s are performed must be disconnected from the power supply and secured against reactivation when power is not required for such work. This may only be carried out by a qualified electrician.

## 3 Description and Technical Data

---

### 3.1 Capacity description

---

Mobile bain marie are electrically heated and mobile bain-marie wells. They hold prepared meals in Gastronorm containers and keep them warm by steam.

Mobile bain marie are designed to keep food warm and in a ready-to-serve condition on food distribution belts in the food service industry and catering establishments.

Furthermore, mobile bain marie can be used for event catering (party and conference service).

The appliances SPA/EB-2LS and SPA/EB-3LS are designed to serve food directly to guests. They are mainly used in a food serving area with counters. The wells arranged side by side lengthwise make possible to use optimally the counter width. Operating staff can easily serve food with suitable ladles from the appliances with larger depth compared to appliances with wells arranged across.

### 3.2 Proper Use

---

Mobile bain maries are intended for holding food in Gastronorm containers. They provide ready-to-serve food on food distribution belts in the food service industry and catering establishments.

The appliances are designed only for foodstuff in inserted Gastronorm containers and water in the bain-marie wells. Use of other loads is not permitted.

Proper use includes observing specified procedures, compliance with the technical specifications and use of supplied or optional original accessories.

Any other use of the appliance is considered as unintended use.

### 3.3 Improper Use

---

Any other use, especially loading the mobile bain marie with other loads than those specified, is not permitted.

Move the mobile bain marie SPA/EB-1 only when empty because of the risk of tilting, i.e. without filled water and inserted GN containers. This model is more likely to tip over due to its narrow design.

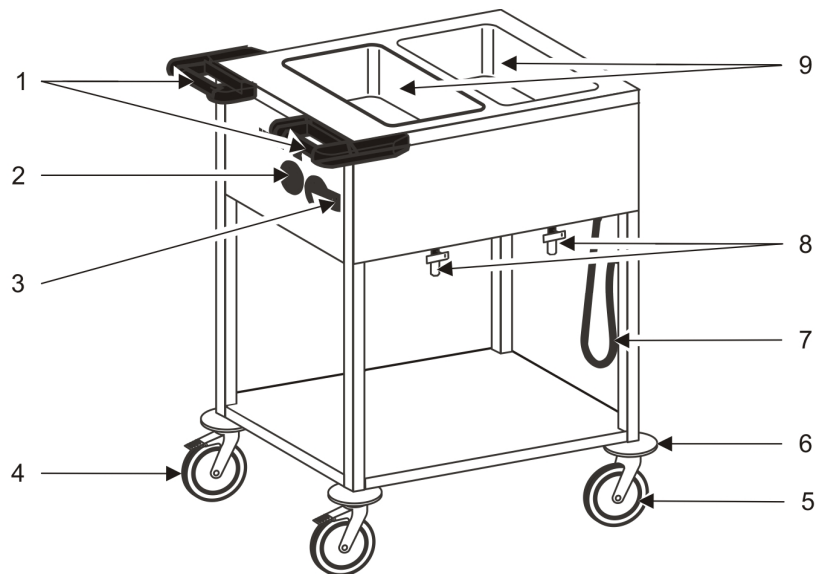
It is not permitted to heat dry the bain-marie wells of the appliances with foil heating (SPA/EB-2F and SPA/EB-3F).

In no case may people sit down or stand on or inside the appliance.

The manufacturer and suppliers are not liable for any consequential damage resulting from unintended use. No liability is assumed and no warranty claims can be submitted for damages caused by improper use.

## 3.4 Appliance Description

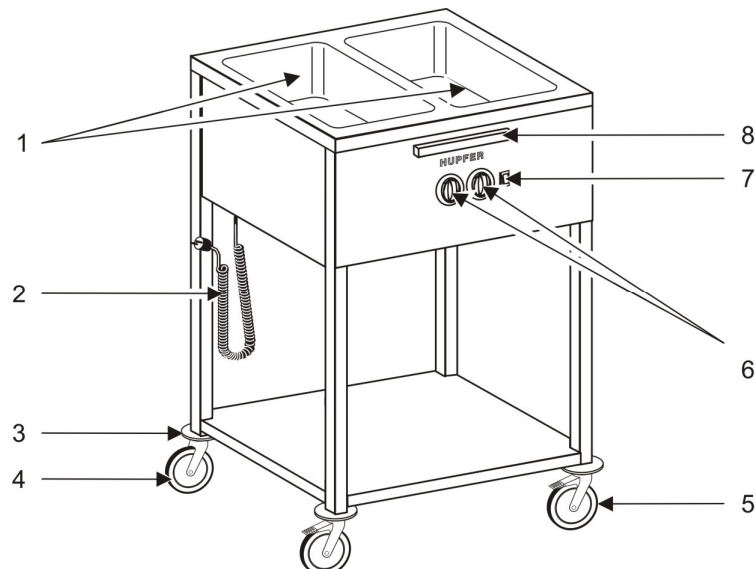
### 3.4.1 View of the mobile bain marie (operation on the front side)



**Figure 1** View of the appliance SPA/EB-2

- |   |  |   |                                 |
|---|--|---|---------------------------------|
| 1 | Push handles                           | 6 | Disc bumpers                    |
| 2 | Thermostat for setting the temperature | 7 | Connecting lead with mains plug |
| 3 | On/off switch                          | 8 | Water drain taps                |
| 4 | Swivel castor with total brakes        | 9 | Bain-marie wells                |
| 5 | Swivel castors without total brakes    |   |                                 |

### 3.4.2 View of the mobile bain marie (front mounted controls)



**Figure 2** View of the appliance SPA/EB-2LS

- |   |                                    |   |  |
|---|------------------------------------|---|--|
| 1 | Bain-marie wells                   | 5 | Swivel castor with total brakes        |
| 2 | Connecting lead with mains plug    | 6 | Thermostat for setting the temperature |
| 3 | Disc bumpers                       | 7 | On/off switch                          |
| 4 | Swivel castor without total brakes | 8 | Bumper with integrated finger grip     |

### 3.4.3 Appliance Description

Mobile bain maries are mobile devices with heated bain-marie wells. They hold up prepared meals in Gastronorm containers and keep them warm.

The bain-marie wells are filled with water and a tubular heating element or a foil heater warm them up. The generating water vapour heats up the inserted Gastronorm containers. Those models consisting of tubular heating elements, their bain-marie wells can be heat dried. Heating elements and electrical components are easy to access and can be dismantled without any problems by authorised specialist staff in order to perform service work.

The operating temperature is set for each bain-marie well separately. There is a thermostat on the front side of the mobile bain marie that is used to set the operating temperature variably between 30°C and 95°C for every bain-marie well.

The shelf is firmly welded onto the continuous pipe frame below the mobile bain-marie well and can be used as an additional shelf. Only objects with a firm base may be stored on the shelves. Do not move the appliance when there are open containers with hot liquids on it. The permitted total weight of the mobile bain marie may not be exceeded.

Mobile bain maries are equipped with four swivel castors, two of which have total brakes that prevent the appliance from moving. Plastic disc bumpers on the swivel castors protect the lateral sides of the appliance and controls against damages.

Push handles with integrated bumper bar protect the models with frontal operation against injuries to the hands. Models SPA/EB-2LS and SPA/EB-3LS with front mounted controls have a plastic bumper with an integrated finger grip arranged above the controls to make it easier to move the appliances.





### 3.4.4 Optional accessories





The following parts can be applied as optional accessories for the mobile bain marie:

- **Support bars**  
Support bars are special elements of stainless steel used in the bain-marie wells. The support bars are to be used with smaller Gastronorm containers. They do not let the steam escape between the containers and reduce, subsequently, heat loss.
- **Drain extension tube**  
The drain extension tube consists of a hose with a threaded connection that is screwed into the water drain tap as an extension hose. The length of the hose of 420 mm is used because the water can be drained out of the bain-marie wells even with an inserted shelf without using a drain container.
- **Hinged shelf**  
Hinged shelves made of stainless steel are designed to hold up crockery items. They can fitted either on the lateral side or on the front side of the appliance. Only authorised specialist staff may fix the hinged shelves to the appliance. To do so, a welding machine is required.  
It is not permitted to put heavy loads on to hinged shelves. During transport, they must be folded up. There is a risk of crushing your fingers when folding up and locking the hinged shelves.

The item code for the special accessories can be found in the spare parts catalogue and online order lists.

### 3.5 Technical data

	Dim.	SPA/EB-1	SPA/EB-2	SPA/EB-2F	SPA/EB-2LS
					
Width	mm (in)	678 (26.7)	678 (26.7)	678 (26.7)	886 (34.9)
Depth	mm (in)	606 (23.9)	924 (36.4)	924 (36.4)	678 (26.7)
Height	mm (in)	900 (35.4)	900 (35.4)	900 (35.4)	900 (35.4)
Tare weight	kg (lbs)	25 (11.3)	35 (15.9)	35 (15.9)	35 (15.9)
Payload	kg (lbs)	30 (13.6)	60 (27.2)	60 (27.2)	60 (27.2)
Number of wells		1	2	2	2
Well size for GN 1/1-200 and subdivisions	mm (in)	530 x 325 (20.9 x 12.8)	530 x 325 (20.9 x 12.8)	530 x 325 (20.9 x 12.8)	530 x 325 (20.9 x 12.8)
Castor diameter	mm (in)	125 (4.9)	125 (4.9)	125 (4.9)	125 (4.9)
Heating		Stainless steel tubular heating element	Stainless steel tubular heating element	Foil heater	Stainless steel tubular heating element
Connected load	kW	0.7	1.4	1.4	1.4
Electrical connection		230V 1N AC 50 Hz	230V 1N AC 50 Hz	230V 1N AC 50 Hz	230V 1N AC 50 Hz
Protection class		IPX5	IPX5	IPX5	IPX5
Temperature regulation, for each well separately		Variable control	Variable control	Variable control	Variable control
Thermostat setting	°C (°F)	30-115 (86-239)	30-115 (86-239)	30-115 (86-239)	30-115 (86-239)

	Dim.	SPA/EB-3	SPA/EB-3F	SPA/EB-3LS	SPA/EB-4
					
Width	mm (in)	678 (26.7)	678 (26.7)	1219 (48.0)	678 (26.7)
Depth	mm (in)	1274 (50.2)	1274 (50.2)	678 (26.7)	1623 (63.9)
Height	mm (in)	900 (35.4)	900 (35.4)	900 (35.4)	900 (35.4)
Tare weight	kg (lbs)	45 (20.4)	45 (20.4)	45 (20.4)	55 (25.0)
Payload	kg (lbs)	90 (40.8)	90 (40.8)	90 (40.8)	120 (54.4)
Number of wells		3	3	3	4
Well size for GN 1/1-200 and subdivisions	mm (in)	530 x 325 (20.9 x 12.8)	530 x 325 (20.9 x 12.8)	530 x 325 (20.9 x 12.8)	530 x 325 (20.9 x 12.8)
Castor diameter	mm (in)	125 (4.9)	125 (4.9)	125 (4.9)	125 (4.9)
Heating		Stainless steel tubular heating element	Foil heater	Stainless steel tubular heating element	Stainless steel tubular heating element
Connected load	kW	2.1	2.1	2.1	2.8
Electrical connection		230V 1N AC 50 Hz	230V 1N AC 50 Hz	230V 1N AC 50 Hz	230V 1N AC 50 Hz
Protection class		IPX5	IPX5	IPX5	IPX5
Heat insulation		Special insulation	Special insulation	Special insulation	Special insulation
Temperature regulation, for each well separately		Variable control	Variable control	Variable control	Variable control
Thermostat setting	°C (°F)	30-115 (86-239)	30-115 (86-239)	30-115 (86-239)	30-115 (86-239)

You can find the corresponding certification marks on our homepage at [www.hupfer.de](http://www.hupfer.de).



3.6 Rating Plate

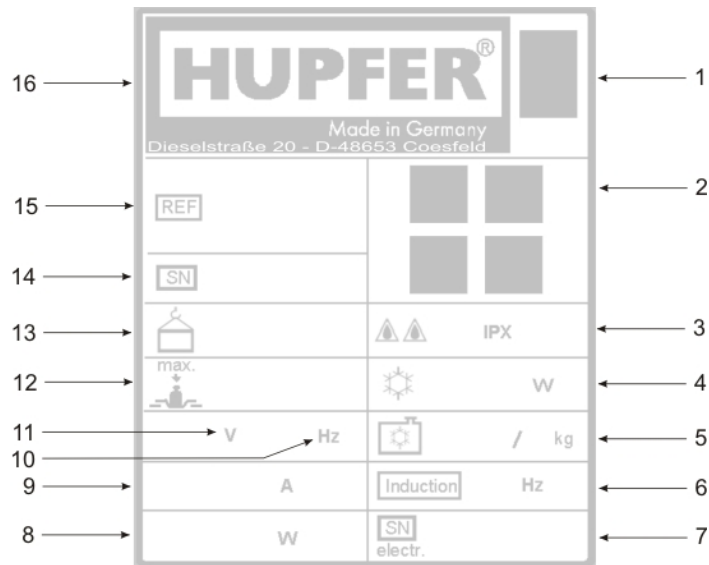



Figure 3 Rating plate

- |   |                            |    |                            |
|---|----------------------------|----|----------------------------|
| 1 | Disposal of old appliances | 9  | Nominal current            |
| 2 | Certificates/label         | 10 | Frequency                  |
| 3 | Protection class           | 11 | Nominal voltage            |
| 4 | Refrigeration capacity     | 12 | Payload                    |
| 5 | Refrigerant                | 13 | Tare weight                |
| 6 | Frequency/Induction        | 14 | Serial number/Order number |
| 7 | Electrical serial number   | 15 | Item and brief description |
| 8 | Electric power             | 16 | Manufacturer               |

## 4 Transport, Commissioning and Decommissioning

### 4.1 Transport


CAUTION	Damage to appliances caused by improper transport
	<p>Appliances should be safely secured when transported off site inside a vehicle such as a truck. The total brakes are not suitable for securing the appliances when they are transported in a vehicle.</p> <p>If the appliances are not secured properly, there is a risk of damage to property and personal injury caused by squashing.</p> <p>Secure each individual separate appliance using suitable transport securing devices.</p>

The mobile bain marie is delivered as an assembled unit, i.e. it is completely assembled including the heating.

When loading, use only hoists and load lifting devices approved for the weight of the mobile bain marie. Only transport vehicles approved for the weight of the appliance may be used.

The scope of delivery is specified in the shipping documents in accordance with the valid purchase agreement and included with the delivery item.

### 4.2 Commissioning

DANGER	Hazardous electrical voltage
	<p>Electrical current can pose a considerable threat to life and physical well-being and may lead to injuries.</p> <p>Before putting the appliance into operation, check whether the power supply indicated on the rating plate (230V / 50 Hz) corresponds to the local power supply. If this is not the case, do not put the appliance into operation.</p> <p>Do not use any extension leads in wet areas.</p>

Remove the original packaging and check whether the appliance is complete and undamaged. Do not put a defective appliance into operation under any circumstances and inform the supplier immediately in such a case.

Always place the mobile bain marie on firm and level floors when unpacking and operating it. Apply the total brakes on both swivel castors to secure the appliance against rolling away.

INFO	Disposal of packing material
	<p>The packing material consists of recyclable materials and can be disposed of accordingly. The different materials should be separated and disposed of in an environmentally friendly manner. The local agencies responsible for disposal must be contacted regarding removal.</p>

The mobile bain marie should be thoroughly cleaned with a soft cloth before putting it into operation for the first time. Ensure that the appliance is clean and dry before putting it into operation.

The following appliance functions must be checked before putting it into operation:

- the functioning of the total brakes
- □ the functioning of the controls and heating.

### 4.3 Storage and Recycling

Appliances must be kept in a dry, frost-free environment when placed in temporary storage. The mobile bain marie must be kept covered with a suitable covering material to be protected against dust ingress.

The appliance kept in the storage location must be checked for damage and corrosion every 6 months.

Information	Condensation
	Ensure that there is sufficient ventilation and no major variations in temperature in the storage location to prevent condensation from forming.




Before the appliance is taken back into operation, it must be clean and dry.

If the mobile bain marie is recycled, all operating and auxiliary materials must be disposed in an environmentally compatible manner. Recyclable materials must be properly separated and disposed of in an environmentally compatible manner in accordance with local Waste Disposal Regulations. The local agencies responsible for disposal must be contacted regarding removal. Separate the reusable materials of the appliance (castors and plastic parts) before disposing of or send the appliance to a recycling centre. Dispose of the electronics at corresponding collection centres.

We offer our customers to dispose of their waste appliances. Please contact us or one of our distribution partners.

Packaging and packing material can be sent to the recycling centre by indicating the waste disposal contract number. If you do not have the valid waste disposal contract number, you can request it from **HUPFER®** Service.

## 5 Operation

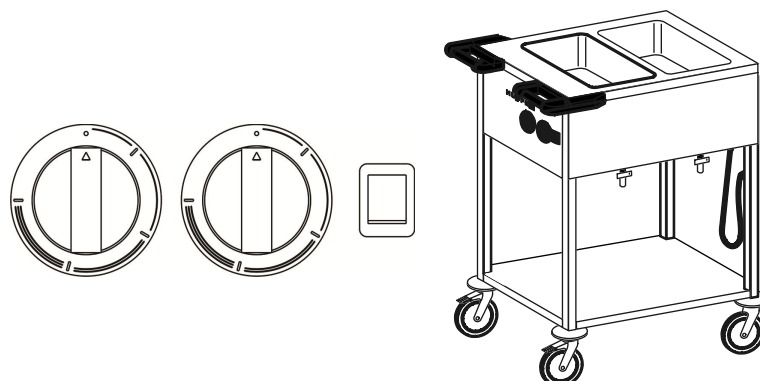
<b>WARNING</b>	<b>Danger caused by hot surfaces</b>
	<p>If the thermostat is set to the level 3 and higher, the permitted maximum temperature of 149°F (65°C) for touchable appliance surfaces can be exceeded. This can cause burns.</p> <p>Only instructed staff may operate the appliance. Wear suitable protective clothing.</p>
<b>CAUTION</b>	<b>Damage to property</b>
	<p>A layer of scale acts as thermal insulation and can lead to a heat accumulation above the tubular heating element as well as cause damage to the well base. There is a risk of corrosion under the scale layer. If bain-marie wells are heated dryly, they may get warped and develop micro-crack forms. This can result in a total damage.</p>
<b>CAUTION</b>	<b>Damage to property</b>
	<p>Move the SPA/EB-1 only when empty because of the risk of tilting, i.e. without filled water and inserted GN containers. Due to the narrow construction, there is an increased risk of tilting of this model.</p> <p>Never try to catch the mobile bain marie with your hands if it tips over due to carelessness or external circumstances.</p>

The mobile bain marie must be checked for external visible damages and defects before each operation. Before putting the appliance into operation, the bain-marie wells must be cooled down, clean and without scale deposits. If required, bain-marie wells that have been already put into operation and completely drained off must cool down for some time.

Those appliances consisting of tubular heating, their bain-marie wells can be heat dried. However, we do not recommend this kind of heating because of a poor heat transfer. Appliances equipped with foil heater may not be heated without water in the bain-marie well.

### 5.1 Arrangement and Function of the Controls

The controls of the mobile bain marie are arranged on the front side of the appliance.



**Figure 4** Controls on the SPA/EB-2

## 5.2 Operation

### WARNING

#### Danger caused by hot surfaces



If the thermostat is set to the level 3 and higher, the permitted maximum temperature of 149°F (65°C) for touchable appliance surfaces can be exceeded. This can cause burns.

Only instructed staff may operate the appliance. Wear suitable protective clothing.

#### Filling bain-marie wells

- Close the water drain tap.
- Fill the bain-marie wells with about 3 l water. There is a maximum fill level indicator on the inner side of the bain-marie well.

### Information

#### Filling bain-marie wells

Warm or hot water reduces the heating time of the appliance. The inserted Gastronorm containers may not come into contact with water, for this reduces heat transfer. Steam is the best heat transfer medium. Higher filling levels will increase the heating time.

### INFO

#### Water quality

If tap water is particularly rich of minerals use softened water to reduce deposits of scale.

#### Setting the temperature

The on/off switch and the thermostats for the bain-marie wells are arranged on the front side of the mobile bain marie.

- Close the bain-marie wells with a well closing lid to avoid heat loss.
- Connect the mobile bain marie to the mains.
- Switch on the appliance with the on/off switch. The indicator integrated into the switch will light up to show when the appliance is ready for operation.
- Set the desired temperature using the thermostat of the certain bain-marie well. Variable control is possible within the 4 capacity ranges. Digits stamped onto the housing above every thermostat helps to allocate them to the corresponding bain-marie wells.

### INFO

#### Operating temperature

If the appliance is filled with cold water up to 2 cm, closed well with a lid and switch on to the maximum power, the water in the bain-marie wells will reach a temperature of 90°C in about 45 minutes.

## Loading

### WARNING

### Risk of scalding | Danger caused by hot surfaces



Metal parts of the appliance can get very hot during operation. Water steam escaping between the Gastronorm containers can cause scalding.

Therefore, pay always attention if the Gastronorm containers are closed well. Wear suitable protective clothing.

Gastronorm containers (1/1) with the depth of up to 200 mm can be put into the bain-marie wells without taking any further measures.

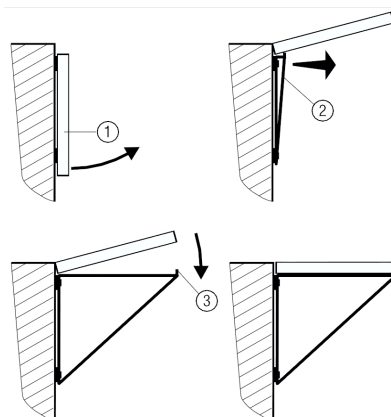
If smaller Gastronorm containers (e.g. GN 2/3, GN 1/2 or GN 1/3), support bars should be used to reduce the steam escape between the containers and, subsequently, heat loss.

- Put support bars suitable for smaller Gastronorm containers into the bain-marie wells.
- Put the Gastronorm containers into the bain-marie wells.
- Place a suitable lid to avoid heat loss.

## Moving

- Set all thermostats to 0.
- Switch off the appliance with the on/off switch.
- Pull out the mains plug and insert it into the holder provided.
- Release the total brakes.
- Grip the mobile bain marie by the push handles and move it to the destination.
- Upon arrival at the destination, apply both total brakes and make sure they are locked and the appliance is secured against unintended movement.
- Connect the appliance to the mains.
- Switch on the mobile bain marie with the on/off switch.
- Set the desired capacity using the thermostat of the certain bain-marie well.

## Using the hinged shelf



**Figure 5** Fold down the hinged shelf

- Fold up the hinged shelf (1).
- Fold down the supports (2).
- Place the supports in such a way that the pins (3) fit into the holes when folding down the hinged shelf.

To fold up the hinged shelf, proceed in the reverse sequence.

## 5.3 Measures at the End of Use

### Switching the mobile bain marie off

#### WARNING

#### Danger caused by hot surfaces



Heated Gastronorm containers can become very hot after operation and exceed the maximum temperature of 65°C for appliance surfaces touched with bare hands. There is a risk of burns.

Proceed with care. Wear suitable protective clothing.

- Set all thermostats to 0.
- Switch off the appliance with the on/off switch.
- Apply both total brakes, make sure they are locked and the appliance is secured against unintended movement.
- Pull out the mains plug and insert it into the holder provided.
- Remove the inserted Gastronorm containers.
- Remove the support bars if available.

### Draining off the water

#### WARNING

#### Risk of scalding



The water in the bain-marie wells can become very hot after operation. There is a risk of scalding when draining off water.

Proceed with care. Wear suitable protective clothing.

#### WARNING

#### Danger caused by hot surfaces



After draining off water, the water drain taps exceed the maximum temperature of 65°C, at which you are allowed to touch the appliance surfaces with bare hands. There is a risk of burns.

Proceed with care. Wear suitable protective clothing.

#### Information

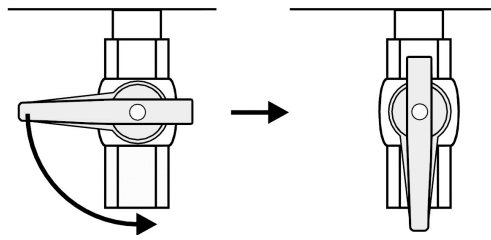
#### Opening the water drain tap

Never turn the water drain taps on or off with a tool. If the water drain tap is stiff, use lubricants that are harmless to health or parting agents (according to USDA-H1).

#### Information

#### Draining off the water



Turn on the water drain taps only directly above the building-site drain or a central waste drain in the kitchen. If you have inserted a shelf into the appliance, use a sufficiently large drain container or a drain extension tube.

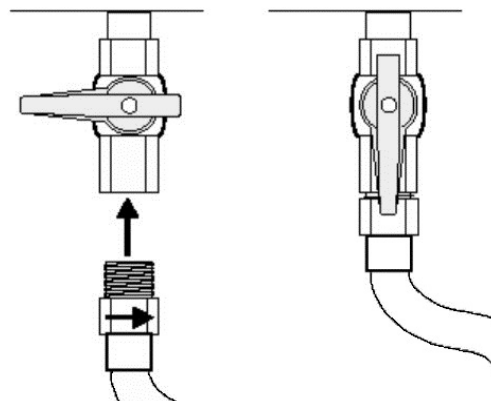


**Figure 6** Opening the water drain tap

- Open the water drain taps.
- Drain off the water from the bain-marie wells.

#### Using the drain extension tube

<b>WARNING</b>	<b>Risk of scalding</b>
	The water in the bain-marie wells can become very hot after operation. There is a risk of scalding when draining off water. Proceed with care. Wear suitable protective clothing.
<b>WARNING</b>	<b>Danger caused by hot surfaces</b>
	After draining off water, the water drain taps exceed the maximum temperature of 65°C, at which you are allowed to touch the appliance surfaces with bare hands. There is a risk of burns. Proceed with care. Wear suitable protective clothing.





**Figure 7** Screwing on the drain extension tube

- Screw the male thread of the drain extension tube to the end fitting of the water drain tap.
- Hold the end of the drain extension tube over a drain.
- Open the water drain tap.
- Drain off the water from the bain-marie wells.



## 6 Troubleshooting and Repair

### 6.1 Safety Measures

<b>DANGER</b>	<b>Hazardous electrical voltage</b>
	<p>Electrical current can pose a considerable threat to life and physical well-being and may lead to injuries.</p> <p>Switch off the appliance at the mains before performing troubleshooting. Pull out the mains plug and insert it into the holder provided.</p>
<b>WARNING</b>	<b>Danger caused by hot surfaces</b>
	<p>The heated appliances can become hot during operation and only cool down slowly in the air.</p> <p>Before performing troubleshooting, let the appliance cool down sufficiently.</p>

### 6.2 Notes regarding Troubleshooting

Please contact our service partners in the event of a malfunction or complaints within the warranty period. Even after the warranty period is expired you can have necessary repair work done by our service partners and certified electricians.

Servicing may be carried out by authorised specialist staff only.

Defective components may only be replaced with **HUPFER®** original spare parts. The modular design simplifies the replacement of individual components.

Always specify the information and corresponding part number indicated on the rating plate when contacting the after-sales service or ordering spare parts.

Regular inspection and maintenance of the appliance prevent disruptions and ensure safety.




### 6.3 Fault and Action Table

Fault	Possible cause	Remedy
Running noise of swivel castors	Defective castor bearings	Replace the swivel castors.
	Sticky surface of the castors	Clean the swivel castors with water.
Appliance does not become warm; indicator light does not come on.	Defective building-site fuse	Check fuse and repair if necessary
	Defective on/off switch.	Switch off the appliance at the mains, have it checked and repaired by authorised specialist staff if necessary
	Defective power supply cable or mains plug	Switch off the appliance at the mains, have it checked and repaired by authorised specialist staff if necessary
Appliance becomes warm; indicator light does not come on.	Defective indicator light	Take the appliance out of operation and have it checked and repaired by authorised technical staff if necessary
	Defective circuit	Take the appliance out of operation and have it checked and repaired by authorised technical staff if necessary
Appliance does not become warm; indicator light is on	Defective thermostat	Take the appliance out of operation and have it checked and repaired by authorised technical staff if necessary
The appliance takes too long to heat up	Too much water in the bain-marie well	Reduce the amount of water

Fault	Possible cause	Remedy
	Deposits of scale or impurities in the bain-marie well	Take the appliance out of operation, descale and clean the bain-marie well after it has been sufficiently cooled down

## 7 Cleaning and Care

### 7.1 Safety Measures

<b>DANGER</b>	<b>Hazardous electrical voltage</b>
	<p>Electrical current can pose a considerable threat to life and physical well-being and may lead to injuries.</p> <p>Before cleaning, switch off the appliance at the mains. Pull out the mains plug and insert it into the holder provided.</p>
<b>WARNING</b>	<b>Danger caused by hot surfaces</b>
	<p>The heated appliances can become hot during operation and only cool down slowly in the air.</p> <p>Before cleaning, let the appliance cool down sufficiently.</p>
<b>CAUTION</b>	<b>Appliance damage</b>
	<p>A layer of scale acts as thermal insulation and can lead to a heat accumulation above the tubular heating element as well as cause damage to the well base. There is a risk of corrosion under the scale layer.</p> <p>Clean the bain-marie wells thoroughly after every use.</p>

### 7.2 Hygiene measures

It is essential for operating staff to act in the correct manner to ensure optimal hygiene.

All persons must have sufficient knowledge about the locally valid hygiene regulations, observe them and comply with them.

Use a waterproof plaster to cover wounds on hands and arms.

Never sneeze or cough on clean crockery or meals.

### 7.3 Cleaning and Care

If the mobile bain marie is handled with care, cleaned and maintained on a regular basis, it does not require any additional care measures. The bain-marie wells should be cleaned regularly after every use and the mobile bain-marie at the latest every 25 operating hours to ensure a hygienically perfect operation.

For thorough and quick cleaning, wipe the mobile bain marie and bain-marie wells with a soft cloth. Use a soft cleaning cloth or an uncoated sponge for cleaning. Use degreasing liquid cleansers that are approved for the food industry. Never use high-pressure cleaners, chloride-based cleaning agents, abrasive cleaning powder or other dry cleaning agents, steel wool, steel sponges and/or sharp-edged items.

If after cleaning the bain-marie wells scale deposits remain, remove them, otherwise energy consumption will grow and efficiency will decrease. In case of heavy scale deposits, this can result in damages to the appliance. To descale, use commercially available descaling agents or vinegar water.

You can regrease the water drain taps with lubricating grease approved for use in the food industry to maintain tightness and ease of movement.

Proceed as follows to clean the mobile bain marie:

- Switch off the appliance. Pull out the mains plug and insert it into the plug holder provided.
- Allow the appliance to cool down.
- Drain off the bain-marie wells.
- Wipe the bain-marie wells and descale if required.
- Wipe the exterior panelling, hinged shelves and shelves of the appliance.

**Table of care measures**

Cleaning and care measures	Action	daily	weekly	monthly	Interval
Bain-marie wells	clean				x <sup>1</sup>
Bain-marie wells	descale				x <sup>2</sup>
Outer cover of the mobile bain marie	clean				x <sup>2</sup>
Hinged shelves and shelves of the mobile bain marie	clean				x <sup>2</sup>
Swivel castors	lubricate				x <sup>3</sup>
Water drain taps	lubricate				x <sup>2</sup>
Connecting lead: mechanical damages and obsolescence	check				x <sup>4</sup>
Mains plug: mechanical damage and obsolescence	check				x <sup>4</sup>

x<sup>1</sup> = after use

x<sup>2</sup> = if necessary, every 25 operating hours at the latest

x<sup>3</sup> = every 2 months

x<sup>4</sup> = every 6 months

## 7.4 Special Care Instructions

Resistance to corrosion in stainless steel is provided by a passive layer which is formed on the surface when oxygen is absorbed. The oxygen in air is sufficient to form the passive layer, so that damage caused by physical action is eliminated automatically.

The passive layer develops or is renewed more quickly when the steel comes into contact with water containing oxygen. The passive layer can be chemically damaged or breached by agents which have a reducing (oxygen-consuming) effect when they come into contact with steel at concentrated levels or at high temperatures.

Such aggressive substances include:

- Substances containing salt and sulphur
- chlorides (salts)
- Seasoning concentrates (e.g. mustard, vinegar essence, seasoning cubes, saline solutions)

Further damages can occur due to:

- Extraneous rust (e.g. from other components, tools or rust film)
- Iron particles (e.g. grinding dust)
- Contact with non-ferrous metals (element formation)
- Lack of oxygen (e.g. no admission of air, low-oxygen water).

General working principles for handling appliances made of "refined stainless steel":

- Always keep the surface of appliances made from stainless steel clean and open to air.
- Use cleaning agents suitable for stainless steel. Never use bleaching cleaning agents or any containing chlorides.
- Remove layers of lime scale, grease, starch and egg-white by cleaning daily. Corrosion may occur underneath these layers due to lack of air absorption.
- After each cleaning operation remove all cleaning agent residues by wiping thoroughly. The surface should be thoroughly dried after wiping.
- Do not bring items made of stainless steel into contact with substances such as concentrated acids, seasonings and salts for longer than is absolutely necessary. Acid fumes emitted when tiles are cleaned also cause corrosion in "refined stainless steel".
- Avoid damaging the surface of the stainless steel, especially caused by contact with metals other than stainless steel.
- Residues from other metals produce extremely small amounts of chemical elements which can cause corrosion. Contact with iron and steel must be avoided at all costs, because it will cause extraneous rust. If stainless steel comes into contact with iron (steel wool, steel particles from leads, water containing iron), this can trigger corrosion. Therefore, only use refined steel wool or brushes with natural, plastics or refined steel bristles only for physical cleaning. Steel wool or brushes with unalloyed steel cause extraneous rust due to abrasion.

## 8 Spare Parts and Accessories

---

Servicing may be carried out by authorised specialist staff only. Defective components may only be replaced with original spare parts. This is the only way to guarantee safe operation and a long service life with optimum transport capacity.

Always indicate the order number and specifications on the rating plate when ordering spare parts or after-sales services. These specifications avoid queries from our service department and speed up processing. The specifications are found in the "Appliance information" section and on the rating plate.

Our service department will be pleased to help with any questions:

HUPFER® Metallwerke GmbH & Co. KG

Dieselstraße 20  
48653 Coesfeld

Postfach 1463  
48634 Coesfeld

☎ +49 2541 805-0  
📠 +49 2541 805-111

[www.hupfer.de](http://www.hupfer.de)  
[info@hupfer.de](mailto:info@hupfer.de)